

WHAT IS CLAIMED IS:

1 1. A power supply, comprising:
2 a mode setting unit for outputting a control signal according to a selected display mode;
3 an inverter control unit for selectively outputting a timing signal received from the
4 outside according to the control signal from the mode setting unit; and
5 an inverter which is operated in either synchronous or asynchronous mode in response to
6 the selectively output timing signal.

1 2. The power supply as claimed in claim 1, wherein the timing signal is a gate select
2 signal or data clock signal.

1 3. The power supply as claimed in claim 1, wherein the timing signal is a vertical or
2 horizontal synchronous signal.

1 4. A liquid crystal display device, comprising:
2 a liquid crystal module including a liquid crystal panel, a gate driving unit for delivering
3 scanning signals to the liquid crystal panel, and a data driving unit for delivering image signals to
4 the liquid crystal panel;
5 a timing controller for providing the image signals input from the outside and a timing
6 signal used to control display of the liquid crystal module;
7 a mode setting unit for outputting a control signal according to a selected display mode;
8 an inverter control unit for selectively outputting the timing signal received from the
9 timing controller according to the control signal from the mode setting unit;

10 an inverter which is operated in either synchronous mode or asynchronous mode in
11 response to the selectively output timing signal; and
12 a lamp which is operated at a relevant frequency according to the operation mode of the
13 inverter.

1 5. The liquid crystal display device as claimed in claim 4, wherein the timing signal
2 is a gate select signal or data clock signal.

1 6. The liquid crystal display device as claimed in claim 4, wherein the timing signal
2 is a vertical or horizontal synchronous signal.

1 7. The liquid crystal display device as claimed in claim 4, wherein the mode setting
2 unit is included in the timing controller.

1 8. A method of driving a liquid crystal display device, comprising the steps of:
2 (a) outputting a control signal according to a selected display mode;
3 (b) selectively outputting, by an inverter controlling unit, a timing signal received
4 from the outside according to the control signal; and
5 (c) driving, by an inverter, a lamp in either synchronous or asynchronous mode
6 according to the selectively output timing signal.

1 9. The method as claimed in claim 8, wherein the display mode is either moving-
2 image or still-image mode.

1 10. The method as claimed in claim 9, wherein step (a) comprises the steps of
2 outputting a first level control signal when the display mode is the moving-image mode, or
3 outputting a second level control signal when the display mode is the still-image mode.

1 11. The method as claimed in claim 10, wherein step (b) comprises the steps of
2 outputting the timing signal received from the outside when the second level control signal is
3 applied, or not outputting the timing signal received from the outside when the second level
4 control signal is applied.

1 12. The method as claimed in claim 8, wherein the timing signal is a gate select signal
2 or data clock signal.

1 13. The method as claimed in claim 8, wherein the timing signal is a vertical or
2 horizontal synchronous signal.